PB90-126426

Preliminary Data Summary for the Pesticide Chemicals Point Source Category

(U.S.) Environmental Protection Agency, Washington, DC

Aug 89

U.S. Department of Commerce
National Technical Information Service
NTIS

United States
Environmental Protection
Agency

Office of Water Regulations
and Standards

EPA 440/1-89/060-e
August 1989

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Water

EPA

Preliminary Data Summary for the Pesticide Chemicals Point Source Category

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22161

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. 440/1-89/060-e	2.	3. Recipient's Accession No. PB90-126426
4. Title and Subtitle Preliminary Data Summary for the Pesticide Chemicals Point Source Category			5. Report Date 6.
7. Author(s) Thomas Fielding and Jan Goodwin			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Environmental Protection Agency WH-552 401 M Street, S.W. Washington, D.C. 20460			10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address			13. Type of Report & Period Covered 14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This document is one of a series of Preliminary Data Summaries prepared by the Office of Water Regulations and Standards of the U. S. Environmental Protection Agency. The Summaries contain engineering, economic and environmental data that pertain to whether industrial facilities in various industries discharge pollutants in their wastewaters and whether the EPA should pursue regulations to control such discharges. The summaries were prepared in order to allow EPA to respond to the mandate of Section 304(m) of the Clean Water Act, which requires the Agency to develop plans to regulate industrial categories that contribute to pollution of the Nation's surface waters. Summaries for categories already subject to rulemaking were developed for comparison purposes, and contain only the minimum amount of data needed to provide some perspective on the relative magnitude of the pollution problems created across the categories.

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
Unlimited	Unclassified	24
	20. Security Class (This Page) Unclassified	22. Price

(See ANSI-Z39.18) See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

PRELIMINARY DATA SUMMARY
FOR THE
PESTICIDE CHEMICALS
POINT SOURCE CATEGORY

Office of Water Regulations and Standards
Office of Water
United States Environmental Protection Agency
Washington, D.C.

August 1989

PREFACE

This is one of a series of Preliminary Data Summaries prepared by the Office of Water Regulations and Standards of the U.S. Environmental Protection Agency. The Summaries contain engineering, economic and environmental data that pertain to question as to whether the industrial facilities in various industries discharge pollutants in their wastewaters and whether the EPA should pursue regulations to control such discharges. The summaries were prepared in order to allow EPA to respond to the mandate of section 304(m) of the Clean Water Act, which requires the Agency to develop plans to regulate industrial categories that contribute to pollution of the Nation's surface waters.

The Summaries vary in terms of the amount and nature of the data presented. This variation reflects several factors, including the overall size of the category (number of dischargers), the amount of sampling and analytical work performed by EPA in developing the Summary, the amount of relevant secondary data that exists for the various categories, whether the industry had been the subject of previous studies (by EPA or other parties), and whether or not the Agency was already committed to a regulation for the industry. With respect to the last factor, the pattern is for categories that are already the subject of regulatory activity (e.g., Pesticides, Pulp and Paper) to have relatively short Summaries. This is because the Summaries are intended primarily to assist EPA management in designating industry categories for rulemaking. Summaries for categories already subject to rulemaking were developed for comparison purposes, and contain only the minimal amount of data needed to provide some perspective on the relative magnitude of the pollution problems created across the categories.

The Preliminary Data Summary for the Pesticide Chemicals Point Source category consists of:

1. Early findings from the EPA Census of Pesticide Manufacturers.

2. EPA estimates of pollutant discharges (loads) for pesticide manufacturers and pesticide formulators and packagers (PFPs).

Persons interested in obtaining additional copies of this summary may write to the following address:

Industrial Technology Division
WH-552
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Telephone (202) 382-7131

EPA Pesticide Manufacturing Facility Census for 1986

The Environmental Protection Agency designed the Pesticide Manufacturing Facility Census for 1986 to collect information on production, wastewater generation and treatment, and financial data from pesticide manufacturing plants. The information will be used to support the development of effluent limitation guidelines and standards.

The Census requested information relating to the production of approximately 300 pesticide active ingredients (AI's), hereinafter referred to as "in-scope AI's." Two hundred forty-two copies of the technical portion of the questionnaire were distributed to the pesticide checmicals industry in the Summer of 1988. Based upon the returned questionnaires:

92 are manufacturers of in-scope AI's;

10 are manufacturers of out-of-scope AI's, but not manufacturers of in-scope AI's;

80 are Pesticide Formulators/Packagers (PFPs), but not manufacturers;

34 are neither manufacturers nor PFPs; and

26 are closed.

The 92 manufacturers produce 160 in-scope AI's. Of those 92 plants:

35 are direct dischargers;

36 are indirect dischargers; and

21 are no-discharge plants.

Other data from the questionnaires are being compiled and are not available in summary form at this time.

EPA distributed the economic portion of the Census to 107 facilities on February 1, 1989. Results are not yet available.

ESTIMATED MANUFACTURERS DISCHARGE LOADS BY AI

SUMMARY RESULTS:

	Annual Flow MGY	AI RWL Lbs/yr	AI Current Lbs/yr	Toxic Weight Factor	Current Lb-equivalent Lbs/yr
TOTALS	1,406	553,493	166,622		1,541,607

AI Code	PESTICIDE	Annual Flow MGY	AI RWL Lbs/yr	AI Current Lbs/yr	Toxic Weight Factor	Current Lb-equivalent Lbs/yr
3	Ethylene dibromide	1.15	452	452	9.3410	4,225
4	Vancide TH	0.00	1	1	N/A	N/A
5	Dichloropropene, cis-1,3-	23.10	9,093	1,819	1.2448	2,264
7	Dowicil 75	0.21	82	49	N/A	N/A
8	Triadimefon	0.07	29	0	0.0603	0
11	Dichlorophen	1.16	457	183	N/A	N/A
12	Dichlorvos	0.46	182	0	5,600.0058	102
16	Dichlorophenoxyacetic acid, 2,4-	36.83	14,498	148	0.0109	2
17	DB, 2,4- salts and esters	0.00	0	0	N/A	N/A
20	Dicloran \ Botran	14.43	5,680	1,136	N/A	N/A
21	Busan 90	2.43	957	957	N/A	N/A
22	Mevinphos \ Phosdrin	1.07	420	0	2,799.9999	118
25	Cyanazine	21.56	8,487	849	0.0579	49
26	Propachlor	18.12	7,132	1,070	0.6593	705
27	MCPA	0.01	2	0	0.1089	0
28	Octhilinone	19.60	7,716	3,858	N/A	N/A
30	Dichlorprop	0.00	0	0	N/A	N/A
31	MCPP \ Mecoprop	0.00	1	0	N/A	N/A
32	Thiabendazole \ Mertect	20.40	8,030	4,015	N/A	N/A
35	Busan 72	0.41	163	163	N/A	N/A
36	HAE	0.11	43	21	N/A	N/A
39	Pronamide	0.39	154	77	N/A	N/A
41	Propanil	1.12	439	149	0.0292	4
42	Polyphase \ Guardsan 388	11.44	4,505	2,252	N/A	N/A
45	Metribuzin	4.18	1,643	16	0.0015	0

49 Etridiazole	3.00	1,181	590	N/A	N/A
52 Acephate	6.76	2,660	0	0.0119	0
53 Acifluorfen \ Blazer	1.99	783	277	N/A	N/A
54 Alachlor \ Lasso	8.94	3,517	1,211	0.5682	688
55 Aldicarb \ Temik	3.64	1,432	143	2.2419	321
56 Hyamine 3500	0.24	96	50	N/A	N/A
58 Ametryn	1.71	672	134	0.0378	5
60 Atrazine	216.38	85,179	4,418	0.0962	425
62 Benomyl \ Benlate	23.29	9,168	917	7.0001	6,418
66 Bifenox	0.00	0	0	N/A	N/A
68 Bromacil	2.15	846	8	N/A	N/A
69 Bromoxynil	2.13	837	42	11.2042	469
70 Butachlor	0.44	175	26	N/A	N/A
71 Giv-gard	0.12	48	19	N/A	N/A
73 Captafol \ Difolatan	4.94	1,943	0	26.8000	5
74 Captan	33.86	13,327	13,327	3.2946	43,906
75 Carbaryl \ Sevin	18.75	7,380	738	280.0001	206,652
76 Carbofuran \ Furadan	0.71	281	112	2.3371	262
80 Chloroneb	0.53	207	41	N/A	N/A
81 Chloropicrin	2.56	1,008	605	N/A	N/A
86 Chlorpyrifos \ Dursban	16.32	6,424	642	136.8755	87,933
88 Bioquin	0.00	0	0	N/A	N/A
91 Cycloheximide	0.51	201	80	N/A	N/A
98 Dicamba	92.34	36,349	36,349	0.0290	1,053
103 Diazinon \ Spectracide	4.87	1,918	96	622.2352	59,668
112 Dinoseb \ DNBP	2.18	856	43	12.8490	550
113 Dioxathion	15.05	5,924	296	62.2378	18,434
115 Diphenamid	1.14	450	90	0.0040	0
117 MGK 326	0.01	4	4	N/A	N/A
118 Nabonate	0.23	91	91	N/A	N/A
120 Metasol DGH	0.24	96	24	N/A	N/A
123 Endothall	7.38	2,904	726	0.8000	581
125 Ethalfluralin	3.15	1,241	62	N/A	N/A
126 Ethion \ Bladan	2.05	808	808	280.5846	226,647
127 Ethoprophos	1.97	775	39	N/A	N/A
129 Chlorobenzilate	4.09	1,612	322	0.9619	310

130 Butylate	2.08	820	820	0.0106	9
132 Fenarimol \ Rubigan	6.20	2,441	0	N/A	N/A
133 Fenthion \ Baytex	0.15	59	1	933.5573	551
135 Fluometuron	7.18	2,825	141	0.1885	27
138 Glyphosate \ Roundup	159.71	62,869	8,221	0.0683	561
140 Heptachlor	0.21	84	25	3,438.5965	86,982
142 Hexazinone	0.67	264	0	0.0007	0
144 Isopropalin	0.59	230	0	6.4889	0
150 Malathion	2.08	817	327	700.0002	228,820
154 Methamidophos	1.76	692	7	0.0045	0
156 Methomyl \ Lannate	11.10	4,370	379	12.7273	4,829
157 Methoprene	0.08	30	30	0.3543	11
158 Methoxychlor	1.12	442	88	186.6937	16,492
160 Bromomethane	34.05	13,404	13,404	0.0459	615
163 Nalco D-2303	0.71	279	279	N/A	N/A
170 Napropamide	1.17	461	461	N/A	N/A
171 Deet	0.19	77	33	N/A	N/A
172 Nabam	0.16	62	35	N/A	N/A
173 Naled \ Dibrom	0.00	0	0	1,400.0002	0
175 Norflurazon	1.15	451	68	N/A	N/A
176 Naptalam	0.00	0	0	N/A	N/A
177 MGK 264	0.11	44	44	N/A	N/A
178 Benfluralin	1.22	482	24	1.5270	37
182 Fensulfothion \ Desanit	0.07	28	0	11.2295	3
183 Disulfoton	2.04	805	8	112.0533	902
185 Phosmet \ Imidan	0.25	99	99	56.0022	5,551
186 Azinphos methyl \ Guthion, methyl-	6.02	2,370	24	5,600.0052	132,707
190 Organo-copper	0.04	17	7	N/A	N/A
191 Organo-mercury	6.06	2,387	1,147	N/A	N/A
192 Organo-tin	6.93	2,729	706	N/A	N/A
196 Oxyfluorofen	2.26	890	445	N/A	N/A
198 Sulprofos oxon	0.08	31	0	N/A	N/A
200 Fonofos	5.60	2,203	2,203	80.0378	176,343
202 Dichlorobenzene, 1,4-	214.05	84,260	43,808	0.0095	416
203 Parathion ethyl	6.75	2,657	399	430.8030	171,705
204 Pendimethalin \ Prowl	18.13	7,136	1	1.3484	1

206 Pentachlorophenol	9.30	3,662	3,662	0.4310	1,578
208 Permethrin \ Ambush \ Pounce	0.28	111	12	243.4809	2,809
210 Phenothiazine	0.00	0	0	N/A	N/A
211 Phenylphenol, o-	30.42	11,975	1,796	0.0973	175
212 Phorate \ Famophos \ Thimet	1.48	582	0	935.5733	54
215 Picloram	64.20	25,271	1,262	4.1483	5,234
216 Piperonyl butoxide	0.12	48	24	N/A	N/A
218 Busan 85	0.11	43	43	N/A	N/A
219 Busan 40	0.16	64	64	N/A	N/A
220 KN Methyl	0.32	124	124	N/A	N/A
221 Metasol J26	0.03	10	10	N/A	N/A
223 Prometon \ Pramitol	0.66	259	52	0.0099	1
224 Prometyrn \ Caparol	0.67	265	53	0.2421	13
226 Propazine	23.52	9,259	463	0.0076	4
227 Propanoic acid	6.75	2,655	531	N/A	N/A
230 Pyrethrin I	0.25	99	99	400.0088	39,681
236 DEF	1.41	555	6	N/A	N/A
239 Simazine	33.60	13,227	661	0.5605	371
241 Carbam-S	0.08	32	17	N/A	N/A
243 Metham sodium \ Vapam	0.67	264	264	N/A	N/A
245 Cycloate	0.39	154	154	N/A	N/A
246 EPTC	5.42	2,134	1,948	0.0074	14
247 Molinate	1.61	635	635	0.5336	339
250 HPTMS	0.05	20	3	N/A	N/A
251 Bensulide \ Betesan	2.41	949	949	N/A	N/A
252 Tebuthiuron	17.51	6,894	1	0.0011	0
253 Temephos \ Abate	0.29	115	115	N/A	N/A
254 Terbacil	2.52	992	10	N/A	N/A
255 Terbufos \ Counter	3.01	1,185	0	N/A	N/A
256 Terbuthylazine	15.12	5,952	298	N/A	N/A
257 Terbutryn	0.63	248	50	0.8195	41
259 Busamid \ Dazomet \ Mylone \ Nefusan	0.50	196	123	N/A	N/A
264 Trifluralin \ Treflan	20.57	8,096	405	7.2551	2,937
266 Vancide 51Z \ Zetax	0.00	0	0	N/A	N/A
268 Ziram \ Cymate	0.00	0	0	0.3733	0
272 Chlorpropham	0.12	46	7	0.0175	0

NOTES:

1. ANNUAL FLOW FROM THE QUESTIONNAIRES; ALL OTHER DISCHARGE VALUES ARE ESTIMATES.

2. RWL ESTIMATED FROM ANNUAL FLOW AND AVERAGE RWL FROM 5 PLANTS SAMPLED BY EPA IN 1988.
   AVERAGE RWL CONCENTRATION AT THOSE 5 PLANTS WAS 47.2 PPM.
   THIS CONCENTRATION WAS USED FOR ALL AI'S AT ALL PLANTS.

3. CURRENT DISCHARGE LOADS ESTIMATED BY APPLYING AN EXPECTED TYPICAL POLLUTANT REDUCTION FACTOR
   BASED ON THE TREATMENT CURRENTLY PROVIDED.

4. CURRENT LB-EQUIVALENT DISCHARGES ESTIMATED BY MULTIPLYING CURRENT DISCHARGE LOADS IN LBS
   BY THE TOXIC WEIGHT FACTOR.

5. N/A = NOT AVAILABLE, i.e., INSUFFICIENT TOXICITY INFORMATION TO ESTIMATE A TOXIC WEIGHT FACTOR.

ESTIMATED MANUFACTURERS DISCHARGE LOADS BY AI/DISCHARGE TYPE

SUMMARY RESULTS:

	Annual Flow MGY	AI RWL Lbs/yr	AI Current Lbs/yr	Toxic Weight Factor	Current Lb-equivalent Lbs/yr
CH = CONTRACT HAUL	3	1,245	509		0
D = DIRECT DISCHARGE	1,020	401,674	63,603		550,912
I = INDIRECT DISCHARGE	151	59,432	28,246		755,237
DWI = DEEPWELL INJECTED	189	74,262	74,262		235,177
IN = INCINERATED	43	16,880	2		280
Z= NO WATER DISCHARGED					
TOTALS	1,406	553,493	166,622		1,541,607

AI Code	PESTICIDE	WW Discharge Status	Annual Flow MGY	AI RWL Lbs/yr	AI Current Lbs/yr	Toxic Weight Factor	Current Lb-equivalent Lbs/yr
16	Dichlorophenoxyacetic acid, 2,4-	CH	0.00	0	0	0.0109	0
41	Propanil	CH	0.02	10	10	0.0292	0
127	Ethoprophos	CH	1.97	775	39	N/A	N/A
170	Napropamide	CH	1.17	461	461	N/A	N/A
252	Tebuthiuron	D	17.51	6,894	1	0.0011	0
8	Triadimefon	D	0.07	29	0	0.0603	0
45	Metribuzin	D	4.18	1,643	16	0.0015	0
154	Methamidophos	D	1.76	692	7	0.0045	0
144	Isopropalin	D	0.59	230	0	6.4889	0
115	Diphenamid	D	1.14	450	90	0.0040	0
223	Prometon \ Pramitol	D	0.66	259	52	0.0099	1
16	Dichlorophenoxyacetic acid, 2,4-	D	36.75	14,467	145	0.0109	2
41	Propanil	D	0.75	295	59	0.0292	2
182	Fensulfothion \ Desanit	D	0.07	28	0	11.2295	3
226	Propazine	D	23.52	9,259	463	0.0076	4
58	Ametryn	D	1.71	672	134	0.0378	5

224 Prometyrn \ Caparol	D	0.67	265	53	0.2421	13
60 Atrazine	D	8.06	3,174	317	0.0962	31
178 Benfluralin	D	1.22	482	24	1.5270	37
257 Terbutryn	D	0.63	248	50	0.8195	41
25 Cyanazine	D	21.56	8,487	849	0.0579	49
156 Methomyl \ Lannate	D	1.63	640	6	12.7273	81
202 Dichlorobenzene, 1,4-	D	42.63	16,782	10,069	0.0095	96
54 Alachlor \ Lasso	D	3.98	1,565	235	0.5682	133
138 Glyphosate \ Roundup	D	61.44	24,185	2,419	0.0683	165
211 Phenylphenol, o-	D	30.42	11,975	1,796	0.0973	175
202 Dichlorobenzene, 1,4-	D	124.20	48,891	24,446	0.0095	232
129 Chlorobenzilate	D	4.09	1,612	322	0.9619	310
55 Aldicarb \ Temik	D	3.64	1,432	143	2.2419	321
239 Simazine	D	33.60	13,227	661	0.5605	371
60 Atrazine	D	208.32	82,005	4,100	0.0962	395
138 Glyphosate \ Roundup	D	98.27	38,684	5,803	0.0683	396
112 Dinoseb \ DNBP	D	2.18	856	43	12.8490	550
133 Fenthion \ Baytex	D	0.15	59	1	933.5573	551
123 Endothall	D	7.38	2,904	726	0.8000	581
26 Propachlor	D	18.12	7,132	1,070	0.6593	705
183 Disulfoton	D	2.04	805	8	112.0533	902
208 Permethrin \ Ambush \ Pounce	D	0.27	105	5	243.4809	1,276
5 Dichloropropene, cis-1,3-	D	23.10	9,093	1,819	1.2448	2,264
264 Trifluralin \ Treflan	D	20.57	8,096	405	7.2551	2,937
156 Methomyl \ Lannate	D	9.48	3,731	373	12.7273	4,748
215 Picloram	D	64.11	25,236	1,262	4.1483	5,234
62 Benomyl \ Benlate	D	23.29	9,168	917	7.0001	6,418
158 Methoxychlor	D	1.12	442	88	186.6937	16,492
113 Dioxathion	D	15.05	5,924	296	62.2378	18,434
103 Diazinon \ Spectracide	D	4.87	1,918	96	622.2352	59,668
86 Chlorpyrifos \ Dursban	D	16.32	6,424	642	136.8755	87,933
186 Azinphos methyl \ Guthion, methyl-	D	6.02	2,370	24	5,600.0052	132,707
75 Carbaryl \ Sevin	D	18.75	7,380	738	280.0001	206,652
7 Dowicil 75	D	0.21	82	49	N/A	N/A
20 Dicloran \ Botran	D	14.43	5,680	1,136	N/A	N/A
68 Bromacil	D	2.15	846	8	N/A	N/A

70 Butachlor	D	0.44	175	26	N/A	N/A
80 Chloroneb	D	0.53	207	41	N/A	N/A
120 Metasol DGH	D	0.23	90	18	N/A	N/A
125 Ethalfluralin	D	3.15	1,241	62	N/A	N/A
171 Deet	D	0.04	16	3	N/A	N/A
175 Norflurazon	D	1.15	451	68	N/A	N/A
176 Naptalam	D	0.00	0	0	N/A	N/A
190 Organo-copper	D	0.02	8	4	N/A	N/A
192 Organo-tin	D	1.11	438	263	N/A	N/A
192 Organo-tin	D	5.11	2,012	302	N/A	N/A
198 Sulprofos oxon	D	0.08	31	0	N/A	N/A
210 Phenothiazine	D	0.00	0	0	N/A	N/A
216 Piperonyl butoxide	D	0.03	12	2	N/A	N/A
227 Propanoic acid	D	6.75	2,655	531	N/A	N/A
236 DEF	D	1.41	555	6	N/A	N/A
250 HPTMS	D	0.05	20	3	N/A	N/A
254 Terbacil	D	2.52	992	10	N/A	N/A
256 Terbuthylazine	D	15.12	5,952	298	N/A	N/A
130 Butylate	DWI	2.08	820	820	0.0106	9
157 Methoprene	DWI	0.08	30	30	0.3543	11
246 EPTC	DWI	4.94	1,946	1,946	0.0074	14
247 Molinate	DWI	1.61	635	635	0.5336	339
160 Bromomethane	DWI	34.05	13,404	13,404	0.0459	615
98 Dicamba	DWI	92.34	36,349	36,349	0.0290	1,053
208 Permethrin \ Ambush \ Pounce	DWI	0.02	6	6	243.4809	1,534
206 Pentachlorophenol	DWI	9.30	3,662	3,662	0.4310	1,578
3 Ethylene dibromide	DWI	1.15	452	452	9.3410	4,225
185 Phosmet \ Imidan	DWI	0.25	99	99	56.0022	5,551
74 Captan	DWI	33.86	13,327	13,327	3.2946	43,906
200 Fonofos	DWI	5.60	2,203	2,203	80.0378	176,343
4 Vancide TH	DWI	0.00	1	1	N/A	N/A
53 Acifluorfen \ Blazer	DWI	0.27	108	108	N/A	N/A
245 Cycloate	DWI	0.39	154	154	N/A	N/A
251 Bensulide \ Betesan	DWI	2.41	949	949	N/A	N/A
253 Temephos \ Abate	DWI	0.29	115	115	N/A	N/A
27 MCPA	I	0.00	0	0	0.1089	0

246	EPTC	0.48	187	2	0.0074	0
16	Dichlorophenoxyacetic acid, 2,4-	0.01	3	3	0.0109	0
272	Chlorpropham	0.12	46	7	0.0175	0
41	Propanil	0.34	134	80	0.0292	2
135	Fluometuron	7.18	2,825	141	0.1885	27
202	Dichlorobenzene, 1,4-	47.22	18,587	9,294	0.0095	88
76	Carbofuran \ Furadan	0.71	281	112	2.3371	262
69	Bromoxynil	2.13	837	42	11.2042	469
54	Alachlor \ Lasso	4.96	1,952	976	0.5682	555
230	Pyrethrin I	0.25	99	99	400.0088	39,681
140	Heptachlor	0.21	84	25	3,438.5965	86,982
203	Parathion ethyl	6.75	2,657	399	430.8030	171,705
126	Ethion \ Bladan	2.05	808	808	280.5846	226,647
150	Malathion	2.08	817	327	700.0002	228,820
11	Dichlorophen	1.16	457	183	N/A	N/A
17	DB, 2,4- salts and esters	0.00	0	0	N/A	N/A
21	Busan 90	2.43	957	957	N/A	N/A
28	Octhilinone	19.60	7,716	3,858	N/A	N/A
30	Dichlorprop	0.00	0	0	N/A	N/A
32	Thiabendazole \ Mertect	20.40	8,030	4,015	N/A	N/A
35	Busan 72	0.41	163	163	N/A	N/A
36	HAE	0.11	43	21	N/A	N/A
39	Pronamide	0.39	154	77	N/A	N/A
42	Polyphase \ Guardsan 388	11.44	4,505	2,252	N/A	N/A
49	Etridiazole	3.00	1,181	590	N/A	N/A
53	Acifluorfen \ Blazer	1.72	675	169	N/A	N/A
56	Hyamine 3500	0.08	30	15	N/A	N/A
56	Hyamine 3500	0.01	3	3	N/A	N/A
56	Hyamine 3500	0.16	63	31	N/A	N/A
71	Giv-gard	0.12	48	19	N/A	N/A
81	Chloropicrin	2.56	1,008	605	N/A	N/A
91	Cycloheximide	0.51	201	80	N/A	N/A
117	MGK 326	0.01	4	4	N/A	N/A
118	Nabonate	0.23	91	91	N/A	N/A
120	Metasol DGH	0.02	6	6	N/A	N/A
163	Nalco D-2303	0.01	6	6	N/A	N/A

163 Nalco D-2303	I	0.69	273	273	N/A	N/A
171 Deet	I	0.15	60	30	N/A	N/A
172 Nabam	I	0.06	24	12	N/A	N/A
172 Nabam	I	0.10	38	23	N/A	N/A
177 MGK 264	I	0.11	44	44	N/A	N/A
190 Organo-copper	I	0.00	2	1	N/A	N/A
190 Organo-copper	I	0.00	0	0	N/A	N/A
190 Organo-copper	I	0.02	7	2	N/A	N/A
190 Organo-copper	I	0.00	0	0	N/A	N/A
191 Organo-mercury	I	0.01	4	1	N/A	N/A
191 Organo-mercury	I	0.01	4	1	N/A	N/A
191 Organo-mercury	I	5.76	2,267	1,134	N/A	N/A
191 Organo-mercury	I	0.28	112	11	N/A	N/A
192 Organo-tin	I	0.01	4	2	N/A	N/A
192 Organo-tin	I	0.56	220	110	N/A	N/A
192 Organo-tin	I	0.10	39	19	N/A	N/A
192 Organo-tin	I	0.00	1	1	N/A	N/A
192 Organo-tin	I	0.04	15	9	N/A	N/A
192 Organo-tin	I	0.00	0	0	N/A	N/A
196 Oxyfluorofen	I	2.26	890	445	N/A	N/A
216 Piperonyl butoxide	I	0.09	37	22	N/A	N/A
218 Busan 85	I	0.11	43	43	N/A	N/A
219 Busan 40	I	0.16	64	64	N/A	N/A
220 KN Methyl	I	0.32	124	124	N/A	N/A
221 Metasol J26	I	0.03	10	10	N/A	N/A
241 Carbam-S	I	0.06	24	12	N/A	N/A
241 Carbam-S	I	0.02	8	5	N/A	N/A
243 Metham sodium \ Vapam	I	0.67	264	264	N/A	N/A
259 Busamid \ Dazomet \ Mylone \ Nefusan	I	0.37	147	74	N/A	N/A
259 Busamid \ Dazomet \ Mylone \ Nefusan	I	0.12	49	49	N/A	N/A
142 Hexazinone	IN	0.67	264	0	0.0007	0
27 MCPA	IN	0.01	2	0	0.1089	0
16 Dichlorophenoxyacetic acid, 2,4-	IN	0.07	29	0	0.0109	0
52 Acephate	IN	6.76	2,660	0	0.0119	0
215 Picloram	IN	0.09	35	0	4.1483	0
204 Pendimethalin \ Prowl	IN	18.13	7,136	1	1.3484	1

73 Captafol \ Difolatan	IN	4.94	1,943	0	26.8000	5
212 Phorate \ Famophos \ Thimet	IN	1.48	582	0	935.5733	54
12 Dichlorvos	IN	0.46	182	0	5,600.0058	102
22 Mevinphos \ Phosdrin	IN	1.07	420	0	2,799.9999	118
31 MCPP \ Mecoprop	IN	0.00	1	0	N/A	N/A
132 Fenarimol \ Rubigan	IN	6.20	2,441	0	N/A	N/A
255 Terbufos \ Counter	IN	3.01	1,185	0	N/A	N/A
16 Dichlorophenoxyacetic acid, 2,4-	Z	0.00	0	0	0.0109	0
27 MCPA	Z	0.00	0	0	0.1089	0
55 Aldicarb \ Temik	Z	0.00	0	0	2.2419	0
123 Endothall	Z	0.00	0	0	0.8000	0
160 Bromomethane	Z	0.00	0	0	0.0459	0
173 Naled \ Dibrom	Z	0.00	0	0	1,400.0002	0
185 Phosmet \ Imidan	Z	0.00	0	0	56.0022	0
206 Pentachlorophenol	Z	0.00	0	0	0.4310	0
268 Ziram \ Cymate	Z	0.00	0	0	0.3733	0
30 Dichlorprop	Z	0.00	0	0	N/A	N/A
31 MCPP \ Mecoprop	Z	0.00	0	0	N/A	N/A
36 HAE	Z	0.00	0	0	N/A	N/A
66 Bifenox	Z	0.00	0	0	N/A	N/A
68 Bromacil	Z	0.00	0	0	N/A	N/A
81 Chloropicrin	Z	0.00	0	0	N/A	N/A
81 Chloropicrin	Z	0.00	0	0	N/A	N/A
88 Bioquin	Z	0.00	0	0	N/A	N/A
196 Oxyfluorofen	Z	0.00	0	0	N/A	N/A
241 Carbam-S	Z	0.00	0	0	N/A	N/A
243 Metham sodium \ Vapam	Z	0.00	0	0	N/A	N/A
266 Vancide 51Z \ Zetax	Z	0.00	0	0	N/A	N/A

NOTES:

1. ANNUAL FLOW FROM THE QUESTIONNAIRES; ALL OTHER DISCHARGE VALUES ARE ESTIMATES.

2. RWL ESTIMATED FROM ANNUAL FLOW AND AVERAGE RWL FROM 5 PLANTS SAMPLED BY EPA IN 1988.
   AVERAGE RWL CONCENTRATION AT THOSE 5 PLANTS WAS 47.2 PPM.
   THIS CONCENTRATION WAS USED FOR ALL AI'S AT ALL PLANTS.

3. CURRENT DISCHARGE LOADS ESTIMATED BY APPLYING AN EXPECTED TYPICAL POLLUTANT REDUCTION FACTOR
   BASED ON THE TREATMENT CURRENTLY PROVIDED.

4. CURRENT LB-EQUIVALENT DISCHARGES ESTIMATED BY MULTIPLYING CURRENT DISCHARGE LOADS IN LBS
   BY THE TOXIC WEIGHT FACTOR.

5. N/A = NOT AVAILABLE, i.e., INSUFFICIENT TOXICITY INFORMATION TO ESTIMATE A TOXIC WEIGHT FACTOR.

ESTIMATED PFP DISCHARGE LOADS BY AI

SUMMARY RESULTS:

	ANNUAL FLOW MGY @ 13% DISCHRS	AI Current Lbs/yr	Current Lb-equivalent Lbs/yr
TOTALS	**1443**	**696,269**	**175,113,541**

AI Code	PESTICIDE	NUMBER PFP PLANTS	ANNUAL FLOW MGY @ 13% DISCHRS	AI Current Lbs/yr	Toxic Weight Factor	Current Lb-equivalent Lbs/yr
1	Dicofol \ Kelthane	31	5.42	2,615	11.6860	30,563
2	Maleic hydrazide	0	0.00	0	0.0009	0
3	Ethylene dibromide	3	0.52	253	9.3410	2,364
4	Vancide TH	1	0.17	84	N/A	N/A
5	Dichloropropene, cis-1,3-	91	15.91	7,677	1.2448	9,557
6	Phenoxarsine, 10,10'-oxydi-	2	0.35	169	N/A	N/A
7	Dowicil 75	2	0.35	169	N/A	N/A
8	Triadimefon	2	0.35	169	0.0603	10
9	Hexachlorophene	6	1.05	506	625.9556	316,854
10	Tetrachlorophene	1	0.17	84	N/A	N/A
11	Dichlorophen	8	1.40	675	N/A	N/A
12	Dichlorvos	96	16.78	8,099	5,600.0058	45,354,949
13	Landrin II	1	0.17	84	N/A	N/A
14	Fenac \ Chlorfenac	0	0.00	0	N/A	N/A
15	Trichlorophenoxyacetic acid, 2,4,5-	1	0.17	84	0.7500	63
16	Dichlorophenoxyacetic acid, 2,4-	159	27.80	13,414	0.0109	146
17	DB, 2,4- salts and esters	3	0.52	253	N/A	N/A
18	Anilazine \ Dyrene	5	0.87	422	N/A	N/A
19	Dinocap \ Karathane	13	2.27	1,097	N/A	N/A
20	Dicloran \ Botran	9	1.57	759	N/A	N/A
21	Busan 90	1	0.17	84	N/A	N/A
22	Mevinphos \ Phosdrin	8	1.40	675	2,799.9999	1,889,788

23	Sulfallate \ CDEC	1	0.17	84	N/A	N/A
24	Chlorfenvinphos \ Supona	2	0.35	169	0.5211	88
25	Cyanazine	39	6.82	3,290	0.0579	191
26	Propachlor	2	0.35	169	0.6593	111
27	MCPA	14	2.45	1,181	0.1089	129
28	Octhilinone	4	0.70	337	N/A	N/A
29	Pindone	10	1.75	844	N/A	N/A
30	Dichlorprop	10	1.75	844	N/A	N/A
31	MCPP \ Mecoprop	69	12.06	5,821	N/A	N/A
32	Thiabendazole \ Mertect	18	3.15	1,519	N/A	N/A
33	Belclene 310	1	0.17	84	N/A	N/A
34	Cloprop	1	0.17	84	N/A	N/A
35	Busan 72	19	3.32	1,603	N/A	N/A
36	HAE	1	0.17	84	N/A	N/A
37	Chlorophacinone	4	0.70	337	N/A	N/A
38	Landrin I	1	0.17	84	N/A	N/A
39	Pronamide	0	0.00	0	N/A	N/A
40	Methiocarb	6	1.05	506	22.4021	11,340
41	Propanil	2	0.35	169	0.0292	5
42	Polyphase \ Guardsan 388	19	3.32	1,603	N/A	N/A
43	Coumafuryl	11	1.92	928	N/A	N/A
44	Dinitro-o-cresol, 4,6-	0	0.00	0	1.7043	0
45	Metribuzin	7	1.22	591	0.0015	1
46	CPA	5	0.87	422	N/A	N/A
47	MCPB	1	0.17	84	1.6032	135
48	Aminocarb \ Matacil	1	0.17	84	N/A	N/A
49	Etridiazole	10	1.75	844	N/A	N/A
50	Ethoxyquin	2	0.35	169	N/A	N/A
51	Quinolinol sulfate	1	0.17	84	N/A	N/A
52	Acephate	8	1.40	675	0.0119	8
53	Acifluorfen \ Blazer	0	0.00	0	N/A	N/A
54	Alachlor \ Lasso	260	45.46	21,935	0.5682	12,464
55	Aldicarb \ Temik	1	0.17	84	2.2419	189
56	Hyamine 3500	402	70.28	33,915	N/A	N/A
57	Allethrin	63	11.01	5,315	N/A	N/A
58	Ametryn	3	0.52	253	0.0378	10

59	Amitraz	3	0.52	253	0.5592	142
60	Atrazine	590	103.15	49,776	0.0962	4,789
61	Bendiocarb \ Ficam	10	1.75	844	0.2900	245
62	Benomyl \ Benlate	17	2.97	1,434	7.0001	10,040
63	BHC	6	1.05	506	15.8377	8,017
64	Benzyl benzoate	7	1.22	591	N/A	N/A
65	Lethane 384	1	0.17	84	N/A	N/A
66	Bifenox	2	0.35	169	N/A	N/A
67	Biphenyl	1	0.17	84	0.0071	1
68	Bromacil	67	11.71	5,652	N/A	N/A
69	Bromoxynil	0	0.00	0	11.2042	0
70	Butachlor	0	0.00	0	N/A	N/A
71	Giv-gard	8	1.40	675	N/A	N/A
72	Hydroxydimethylarsine oxide	8	1.40	675	N/A	N/A
73	Captafol \ Difolatan	3	0.52	253	26.8000	6,783
74	Captan	66	11.54	5,568	3.2946	18,345
75	Carbaryl \ Sevin	125	21.85	10,546	280.0001	2,952,794
76	Carbofuran \ Furadan	5	0.87	422	2.3371	986
77	Carbosulfan	0	0.00	0	37.5667	0
78	Chloramben	16	2.80	1,350	N/A	N/A
79	Chlordane	28	4.90	2,362	2,468.9922	5,832,339
80	Chloroneb	6	1.05	506	N/A	N/A
81	Chloropicrin	43	7.52	3,628	N/A	N/A
82	Chlorothalonil	22	3.85	1,856	2.2686	4,211
83	Chloroxuron	1	0.17	84	N/A	N/A
84	Tetrachlorvinphos \ Gardona \ Stirofos	93	16.26	7,846	1.3050	10,239
85	Chlorpyrifos methyl	0	0.00	0	1.9176	0
86	Chlorpyrifos \ Dursban	189	33.04	15,945	136.8755	2,182,491
87	Mancozeb	22	3.85	1,856	N/A	N/A
88	Bioquin	0	0.00		N/A	N/A
89	Copper EDTA	0	0.00	0	N/A	N/A
90	Fenvalerate \ Pydrin	13	2.27	1,097	155.5836	170,637
91	Cycloheximide	3	0.52	253	N/A	N/A
92	Dalapon	3	0.52	253	0.0102	3
93	Dienochlor \ Pentac	4	0.70	337	N/A	N/A
94	Demeton \ Systox	2	0.35	169	60.6667	10,236

95	Desmedipham \ Betanex	1	0.17	84	N/A	N/A
96	Amobam \ Chloramben	1	0.17	84	N/A	N/A
97	Dibromo-3-chloropropane, 1,2-	1	0.17	84	N/A	N/A
98	Dicamba	69	12.06	5,821	0.0290	169
99	Dichlone \ Phygon	7	1.22	591	N/A	N/A
100	Thiophanate ethyl	2	0.35	169	N/A	N/A
101	Perthane	1	0.17	84	N/A	N/A
102	EXD	0	0.00	0	N/A	N/A
103	Diazinon \ Spectracide	214	37.41	18,054	622.2352	11,233,973
104	Diflubenzuron	1	0.17	84	35.0589	2,958
105	Benzethonium chloride	17	2.97	1,434	N/A	N/A
106	Cygon \ Dimethoate	17	2.97	1,434	0.7690	1,103
107	Parathion methyl	35	6.12	2,953	14,000.0732	41,339,320
108	Dicrotophos \ Bidrin	1	0.17	84	N/A	N/A
109	Crotoxyphos \ Ciodrin	20	3.50	1,687	N/A	N/A
110	DCPA	35	6.12	2,953	0.0701	207
111	Trichlorofon \ Dylox	12	2.10	1,012	622.2238	629,931
112	Dinoseb \ DNBP	8	1.40	675	12.8490	8,672
113	Dioxathion	5	0.87	422	62.2378	26,254
114	Diphacinone	16	2.80	1,350	N/A	N/A
115	Diphenamid	6	1.05	506	0.0040	2
116	Diphenylamine	3	0.52	253	N/A	N/A
117	MGK 326	42	7.34	3,543	N/A	N/A
118	Nabonate	127	22.20	10,714	N/A	N/A
119	Diuron / DCMU	15	2.62	1,265	0.7182	909
120	Metasol DGH	13	2.27	1,097	N/A	N/A
121	Dodecylguanidine monoacetate	12	2.10	1,012	0.0635	64
122	Endosulfan mixed isomers	20	3.50	1,687	100.0352	168,790
123	Endothall	5	0.87	422	0.8000	337
124	Endrin	4	0.70	337	2,443.0179	824,426
125	Ethalfluralin	1	0.17	84	N/A	N/A
126	Ethion \ Bladan	7	1.22	591	280.5846	165,702
127	Ethoprophos	2	0.35	169	N/A	N/A
128	Fenamiphos	1	0.17	84	1.0502	89
129	Chlorobenzilate	0	0.00	0	0.9619	0
130	Butylate	113	19.76	9,533	0.0106	101

131	Famphur \ Famophos	1	0.17	84	N/A	N/A
132	Fenarimol \ Rubigan	1	0.17	84	N/A	N/A
133	Fenthion \ Baytex	13	2.27	1,097	933.5573	1,023,881
134	Ferbam	6	1.05	506	6.2358	3,157
135	Fluometuron	2	0.35	169	0.1885	32
136	Fluoroacetamide, 2-	1	0.17	84	N/A	N/A
137	Folpet	36	6.29	3,037	14.4710	43,951
138	Glyphosate \ Roundup	26	4.55	2,194	0.0683	150
139	Glyphosine	0	0.00	0	N/A	N/A
140	Heptachlor	6	1.05	506	3,438.5965	1,740,594
141	Cycloprate \ Zardex	1	0.17	84	N/A	N/A
142	Hexazinone	5	0.87	422	0.0007	0
143	Isofenphos	15	2.62	1,265	0.1777	225
144	Isopropalin	0	0.00	0	6.4889	0
145	Propham	1	0.17	84	0.0706	6
146	Karbutilate	2	0.35	169	N/A	N/A
147	BHC, gamma- \ Lindane	45	7.87	3,796	78.9600	299,768
148	Linuron	8	1.40	675	0.0812	55
149	Malachite green	1	0.17	84	N/A	N/A
150	Malathion	144	25.18	12,149	700.0002	8,504,047
151	Maneb \ Vancide	34	5.94	2,868	0.2074	595
152	Niacide	0	0.00	0	N/A	N/A
153	Mefluidide	0	0.00	0	N/A	N/A
154	Methamidophos	1	0.17	84	0.0045	0
155	Methiadathion \ Supracide	1	0.17	84	50.9231	4,296
156	Methomyl \ Lannate	6	1.05	506	12.7273	6,442
157	Methoprene	10	1.75	844	0.3543	299
158	Methoxychlor	65	11.36	5,484	186.6937	1,023,783
159	Methyl benzethionium chloride	1	0.17	84	N/A	N/A
160	Bromomethane	25	4.37	2,109	0.0459	97
161	Methylarsonic acid	54	9.44	4,556	N/A	N/A
162	Hyamine 2389	34	5.94	2,868	N/A	N/A
163	Nalco D-2303	32	5.59	2,700	N/A	N/A
164	Quinomethionate	1	0.17	84	N/A	N/A
165	Metolachlor	482	84.27	40,664	0.0562	2,286
166	Mexacarbate \ Mexcarbole \ Zectran	1	0.17	84	N/A	N/A

167	Metiram	1	0.17	84	N/A	N/A
168	Monuron TCA	31	5.42	2,615	N/A	N/A
169	Monuron	4	0.70	337	N/A	N/A
170	Napropamide	4	0.70	337	N/A	N/A
171	Deet	52	9.09	4,387	N/A	N/A
172	Nabam	85	14.86	7,171	N/A	N/A
173	Naled \ Dibrom	13	2.27	1,097	1,400.0002	1,535,453
174	Norea \ Noruron	1	0.17	84	N/A	N/A
175	Norflurazon	0	0.00	0	N/A	N/A
176	Naptalam	7	1.22	591	N/A	N/A
177	MGK 264	203	35.49	17,126	N/A	N/A
178	Benfluralin	46	8.04	3,881	1.5270	5,926
179	Tetraethyldithiopyrophosphate	1	0.17	84	70.0292	5,908
180	Aspon	3	0.52	253	N/A	N/A
181	Coumaphos	6	1.05	506	N/A	N/A
182	Fensulfothion \ Desanit	3	0.52	253	11.2295	2,842
183	Disulfoton	24	4.20	2,025	112.0533	226,882
184	Fenitrothion	1	0.17	84	37,333.3485	3,149,647
185	Phosmet \ Imidan	5	0.87	422	56.0022	23,623
186	Azinphos methyl \ Guthion, methyl-	4	0.70	337	5,600.0052	1,889,789
187	Demeton-O-methyl	14	2.45	1,181	N/A	N/A
188	Organo-arsenic	0	0.00	0	N/A	N/A
189	Organo-cadmium	0	0.00	0	N/A	N/A
190	Organo-copper	51	8.92	4,303	N/A	N/A
191	Organo-mercury	9	1.57	759	N/A	N/A
192	Neostannox	3	0.52	253	N/A	N/A
192	Organo-tin	158	27.62	13,330	N/A	N/A
193	Dichlorobenzene, 1,2-	6	1.05	506	0.0177	9
194	Oryzalin	5	0.87	422	2.9630	1,250
195	Oxamyl \ Vydate	4	0.70	337	0.2333	79
196	Oxyfluorofen	6	1.05	506	N/A	N/A
197	Bolstar \ Sulprofos	2	0.35	169	N/A	N/A
198	Sulprofos oxon	1	0.17	84	N/A	N/A
199	EPN \ Santox	12	2.10	1,012	N/A	N/A
200	Fonofos	6	1.05	506	80.0378	40,515
201	Propoxur \ Baygon	123	21.50	10,377	6.2224	64,570

202	Dichlorobenzene, 1,4-	24	4.20	2,025	0.0095	19
203	Parathion ethyl	34	5.94	2,868	430.8030	1,235,727
204	Pendimethalin \ Prowl	6	1.05	506	1.3484	683
205	Pentachloronitrobenzene \ Quintozene	25	4.37	2,109	13.7692	29,041
206	Pentachlorophenol	139	24.30	11,727	0.4310	5,054
207	Perfluidone	0	0.00	0	N/A	N/A
208	Permethrin \ Ambush \ Pounce	19	3.32	1,603	243.4809	390,286
209	Phenmedipham \ Bentanal	2	0.35	169	N/A	N/A
210	Phenothiazine	29	5.07	2,447	N/A	N/A
211	Phenylphenol, o-	47	8.22	3,965	0.0973	386
212	Phorate \ Famophos \ Thimet	9	1.57	759	935.5733	710,371
213	Phosalone \ Azofone	1	0.17	84	5.6352	475
214	Phosphamidon \ Dimecron	3	0.52	253	N/A	N/A
215	Picloram	1	0.17	84	4.1483	350
216	Piperonyl butoxide	399	69.76	33,662	N/A	N/A
217	Busan 77 \ PBED	265	46.33	22,357	N/A	N/A
218	Busan 85	86	15.04	7,255	N/A	N/A
219	Busan 40	1	0.17	84	N/A	N/A
220	KN Methyl	119	20.80	10,039	N/A	N/A
221	Metasol J26	1	0.17	84	N/A	N/A
222	Profenofos \ Curacron	3	0.52	253	N/A	N/A
223	Prometon \ Pramitol	43	7.52	3,628	0.0099	36
224	Prometyrn \ Caparol	6	1.05	506	0.2421	123
225	Propargite	2	0.35	169	N/A	N/A
226	Propazine	11	1.92	928	0.0076	7
227	Propanoic acid	4	0.70	337	N/A	N/A
228	Previcur N	2	0.35	169	0.0005	0
229	Pyrethrin Coils		0.00		400.0088	0
230	Pyrethrin I	404	70.63	34,084	400.0088	13,633,767
231	Pyrethrin II		0.00		80.0007	0
232	Pyrethrins		0.00		400.0083	0
233	Resmethrin	123	21.50	10,377	329.4246	3,418,425
234	Ronnel	5	0.87	422	N/A	N/A
235	Rotenone \ Mexide	47	8.22	3,965	215.5246	854,594
236	DEF	1	0.17	84	N/A	N/A
237	Siduron	8	1.40	675	N/A	N/A

238	Trichlorophenoxypropionic acid, 2,4,5-	0	0.00	0	0.9485	0	
239	Simazine	21	3.67	1,772	0.5605	993	
240	Sodium bentazon	6	1.05	506	N/A	N/A	
241	Carbam-S	90	15.73	7,593	N/A	N/A	
242	Sodium fluoroacetate	1	0.17	84	N/A	N/A	
243	Metham sodium \ Vapam	39	6.82	3,290	N/A	N/A	
244	Piperonyl sulfoxide	1	0.17	84	N/A	N/A	
245	Cycloate	3	0.52	253	N/A	N/A	
246	EPTC	102	17.83	8,605	0.0074	63	
247	Molinate	3	0.52	253	0.5336	135	
248	Pebulate \ Tillman	4	0.70	337	N/A	N/A	
249	Vernolate	5	0.87	422	0.4735	200	
250	HPTMS	2	0.35	169	N/A	N/A	
251	Bensulide \ Betesan	20	3.50	1,687	N/A	N/A	
252	Tebuthiuron	5	0.87	422	0.0011	0	
253	Temephos \ Abate	5	0.87	422	N/A	N/A	
254	Terbacil	1	0.17	84	N/A	N/A	
255	Terbufos \ Counter	10	1.75	844	N/A	N/A	
256	Terbuthylazine	1	0.17	84	N/A	N/A	
257	Terbutryn	1	0.17	84	N/A	N/A	
258	Tetrachlorophenol, 2,3,4,6-	20	3.50	1,687	0.8195	69	
259	Busamid \ Dazomet \ Mylone \ Nefusan	26	4.55	2,194	0.5619	948	
260	Thiophanate methyl	5	0.87	422	N/A	N/A	
261	Thiram	34	5.94	2,868	0.0126	5	
262	Toxaphene	9	1.57	759	5.3452	15,332	
263	Merphos \ Folex	1	0.17	84	28,767.1240	21,842,580	
264	Trifluralin \ Treflan	207	36.19	17,464	25.5105	2,152	
265	Warfarin	43	7.52	3,628	7.2551	126,700	
266	Vancide 51Z \ Zetax	5	0.87	422	0.0339	123	
267	Zineb \ Dithane Z	22	3.85	1,856	N/A	N/A	
268	Ziram \ Cymate	12	2.10	1,012	0.0054	10	
269	Tri-allate \ Far-Go	2	0.35	169	0.3733	378	
270	Sumithrin	43	7.52	3,628	0.4782	81	
271	Tetramethrin \ Neo-pynamin	37	6.47	3,122	N/A	N/A	
272	Chlorpropham	4	0.70	337	N/A	N/A	
					0.0175	6	

NOTES: ALL DISCHARGE VALUES ESTIMATED

1. ANNUAL FLOW FROM 1983 EPA PFP SURVEY, USING WEIGHTED AVERAGE FOR LARGE/SMALL PLANTS.

2. RWL ESTIMATED FROM ANNUAL FLOW AND AVERAGE RWL FROM 1 PFP PLANT PROVIDING DATA IN 1988.
   AVERAGE RWL CONCENTRATION AT THOSE 5 PLANTS WAS 58 PPM.
   THIS CONCENTRATION WAS USED FOR ALL AI'S.

3. CURRENT DISCHARGE LOADS ASUMED TO BE RWL, i.e., NO TREATMENT CURRENTLY PROVIDED.

4. CURRENT LB-EQUIVALENT DISCHARGES ESTIMATED BY MULTIPLYING CURRENT DISCHARGE LOADS IN LBS
   BY THE TOXIC WEIGHT FACTOR.

5. N/A = NOT AVAILABLE, i.e., INSUFFICIENT TOXICITY INFORMATION TO ESTIMATE A TOXIC WEIGHT FACTOR.